WHAT IS CLAIMED IS:

1. An isolated or recombinant polynucleotide comprising a nucleotide sequence or its complement, wherein said nucleotide sequence hybridizes under stringent conditions to:

(a) at least 540 contiguous nucleotide residues of SEQ ID NO: 1, 3, 5, or 27;

(b) at least 216 contiguous nucleotide residues of SEQ ID NO: 16, 18, or 20; or

(c) at least 100 contiguous nucleotide residues of SEQ ID NO: 8, 10, 12, 14, 23, or 25.

2. An isolated or recombinant polynucleotide comprising a nucleotide sequence or its complement, wherein said nucleotide sequence comprises:

(a) at least 540 contiguous nucleotide residues of SEQ ID NO: 1, 3, 5, or 27;

(b) at least 216 contiguous nucleotide residues of SEQ ID NO: 16, 18, or 20; or

(c) at least 100 contiguous nucleotide residues of SEQ ID NO: 8, 10, 12, 14, 23, or 25.

3. The isolated or recombinant polynucleotide of claim 2 comprising the sequence set forth in any one of SEQ ID NOs: 1, 3, 5, 8, 10, 12, 14, 16, 18, 20, 23, 25, and 27.

4. An isolated or recombinant polynucleotide comprising a nucleotide sequence or its complement, wherein said nucleotide sequence encodes a polypeptide comprising:

(a) at least 180 contiguous amino acid residues of SEQ ID NO: 2, 4, 6, or 28;

(b) at least 72 contiguous amino acid residues of SEQ ID NO: 17, 19, or 21; or

(c) at least 33 contiguous amino acid residues of SEQ ID NO: 9, 11, 13, 15, 24, or 26.

5. The isolated or recombinant polynucleotide of claim 4, comprising a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 2, 4, 6, 9, 11, 13, 15, 17, 19, 21, 24, 26, or 28.

6. An isolated or recombinant polypeptide, comprising an amino acid sequence that is substantially identical to:

(a) at least 180 contiguous amino acid residues of SEQ ID NO: 2, 4, 6, or 28;

(b) at least 72 contiguous amino acid residues of SEQ ID NO: 17, 19, or 21; or

(c) at least 33 contiguous amino acid residues of SEQ ID NO: 9, 11, 13, 15, 24, or 26.

7. The polypeptide of claim 6, comprising:

(a) at least 180 contiguous amino acid residues of SEQ ID NO: 2, 4, 6, or 28;

(b) at least 72 contiguous amino acid residues of SEQ ID NO: 17, 19, or 21; or

(c) at least 33 contiguous amino acid residues of SEQ ID NO: 9, 11, 13, 15, 24, or 26.

8. The polypeptide of claim 7, comprising the amino acid sequence set forth in any one of SEQ ID NOs: 2, 4, 6, 9, 11, 13, 15, 17, 19, 21, 24, 26, and 28.

9. An antibody that specifically binds to the polypeptide of claim 6.

10. A vector comprising a promoter of an IPMC gene operatively linked to the polynucleotide of claim 1.

11. The vector of claim 10, wherein said IPMC gene is the IPM 200 gene or the IPM 150 gene.

12. The vector of claim 10, wherein the promoter is obtained from the sequence set forth in SEQ ID NO: 7 or 22.

13. A method for treating or preventing the development of a disease or condition in a subject, comprising administering to the subject an effective amount of an IPMC therapeutic.

14. The method of claim 13, wherein said disease or condition is photoreceptor death.

15. The method of claim 13, wherein said disease or condition is retinal detachment.

16. The method of claim 13, wherein said IPMC therapeutic is a polynucleotide of claim 1.

17. The method of claim 13, wherein said IPMC therapeutic is a polypeptide of claim 6.

18. The method of claim 13, wherein said IPMC therapeutic is an antibody of claim 9.

19. A method for identifying a compound capable of modulating IPMC gene expression in a cell, comprising:

(1) incubating a cell with said compound under conditions that permit said compound to exert a detectable regulatory influence over an IPMC gene, thereby altering IPMC gene expression; and

(2) detecting an alteration in said IPMC gene expression.

20. The method of claim 19, wherein the IPMC gene is human IPM 150 gene or human IPM 200 gene.